



UNITED STATES PATENT AND TRADEMARK OFFICE

5

UNITED STATES DEPARTMENT OF COMMERCE
United States Patent and Trademark Office
Address: COMMISSIONER FOR PATENTS
P.O. Box 1450
Alexandria, Virginia 22313-1450
www.uspto.gov

APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/647,766	08/25/2003	Patricia K. Somers	04676.105082(ATH 109CON6)	2747
20786	7590	05/11/2006	EXAMINER	
KING & SPALDING LLP 1180 PEACHTREE STREET ATLANTA, GA 30309			OH, TAYLOR V	
			ART UNIT	PAPER NUMBER
			1625	
DATE MAILED: 05/11/2006				

Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary	Application No.	Applicant(s)	
	10/647,766	SOMERS, PATRICIA K.	
	Examiner	Art Unit	
	Taylor Victor Oh	1625	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 03 March 2006.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 23-30 is/are pending in the application.
- 4a) Of the above claim(s) _____ is/are withdrawn from consideration.
- 5) ☐ Claim(s) _____ is/are allowed.
- 6) ☒ Claim(s) 23-30 is/are rejected.
- 7) ☐ Claim(s) _____ is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on _____ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some * c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
2. ☐ Certified copies of the priority documents have been received in Application No. _____.
3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- | | |
|--|---|
| 1) <input type="checkbox"/> Notice of References Cited (PTO-892) | 4) <input type="checkbox"/> Interview Summary (PTO-413) |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948) | Paper No(s)/Mail Date. _____ |
| 3) <input checked="" type="checkbox"/> Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08) | 5) <input type="checkbox"/> Notice of Informal Patent Application (PTO-152) |
| Paper No(s)/Mail Date <u>9/3/04</u> . | 6) <input type="checkbox"/> Other: _____ |

Art Unit: 1625

The Status of Claims

Claims 23-30 are pending.

Claims 23-30 have been rejected.

DETAILED ACTION

Priority

1. It is noted that the application is a continuation of 10/060,734 filed on 01/30/02 (US 6,617,352), which is a continuation of 09/370,046 filed on 08/06/1999 (US 6,548,699), which is a continuation of 09/079,213 filed on 05/14/1998 (US 6,147,250), which claims a benefit of 60/047,020 (05/14/1997).

Drawings

2. None.

Claim Rejections - 35 USC § 102

The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(b) the invention was patented or described in a printed publication in this or a foreign country or in public use or on sale in this country, more than one year prior to the date of application for patent in the United States.

3. Claims 23-30 are rejected under 35 U.S.C. 102(b) as being anticipated clearly by Medford et al (WO 98/51662).

Art Unit: 1625

Medford et al discloses the preparation of an ester of probucol in the following example

22 (see page 41, lines 15-30) :

Butanediolic acid, mono [4-[[1-[[3,5-bis(1,1-dimethylethyl)-4-hydroxyphenyl]thio]-1-methylethyl]thio]-2,6-bis(1,1-dimethylethyl)phenyl] ester

Reaction Description:

To a 50 mL recovery flask was added probucol (1.0g, 1.93 mmol) and tetrahydrofuran (16 mL). To the solution was added 60% sodium hydride in mineral oil (0.23g, 5.75 mmol). To the cloudy white mixture was added succinic anhydride (0.58g, 5.8 mmol) in THF (12 mL). The reaction dark purple and was stirred at room temperature for 3 h. The dark purple reaction mixture was made acidic with 1N HCl (25 mL) and extracted twice with ethyl acetate (50 mL). The organic extracts were dried over MgSO_4 , filtered and concentrated affording an orange solid. The orange solid was dissolved in ether and chromatographed on silica gel with a concentration gradient of 70:30 hexane/ether to 0:100 hexane/ether. The appropriate fractions were combined and concentrated affording a white solid. (170 mgm 0.276 mmol, 14%). TLC (silica gel, 60:40 ether/hexane + 10 drops HOAc, $R_f = 0.35$); ^1H NMR (CDCl_3 , 400 MHz): δ 7.61 (s, 2 H), 7.43 (s, 2 H), 5.38 (s, 1 H), 2.97 (t, $J = 6.8$ Hz, 2 H), 2.76 (t, $J = 6.8$ Hz, 2 H), 1.45 (s, 8 H), 1.42 (s, 16 H), 1.32 (s, 18 H).

Furthermore, the same reference discloses the preparation of an ester of probucol by using glutaric anhydride as shown below (see page 51, lines 20-30):

Pentanedioic acid, mono[4-[[1-[[3,5-bis(1,1-dimethylethyl)-4-hydroxyphenyl]thio]-1-methylethyl]thio]-2,6-bis(1,1-dimethylethyl)phenyl] ester

Reaction Description:

To a 50 mL recovery flask was added probucol (1.0g, 1.93 mmol) and tetrahydrofuran (20 mL). To the solution was added 60% sodium hydride in mineral oil (0.16g, 4 mmol). To the cloudy white mixture was added glutaric anhydride (0.170g, 3 mmol) in THF (12 mL). The reaction was stirred at room temperature for 3 h. The reaction mixture was made acidic with 1N HCl (25 mL) and extracted twice with ethyl acetate (50 mL). The organic extracts were dried over MgSO_4 , filtered and concentrated affording a yellow oil. The yellow oil was dissolved in ether and chromatographed on silica gel with a concentration gradient of 70:30 hexane/ether to 0:100 hexane/ether. The appropriate fractions were combined and concentrated affording a white solid. 7.62 (s, 2 H), 7.45 (s, 2 H),

This is identical with the claims.

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Taylor Victor Oh whose telephone number is 571-272-0689. The examiner can normally be reached on 8:30-5:00.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Thomas McKenzie can be reached on 571-272-0670. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).

May 16 2002
5/10/06